

Cross Curriculum Priorities



General Capabilities



First Steps Links

Understand Whole and Decimal Numbers

- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.
- KU 5 Pg.
- KU6 Pg.
- KU 7 Pg.
- KU 8 Pg.

Understand Fractional Numbers

- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.
- KU 5 Pg.
- KU 6 Pg.
- KU 7 Pg.

Understand Operations

- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.
- KU 5 Pg.
- KU 6 Pg.
- KU 7 Pg.
- KU 8 Pg.
- KU 9 Pg.

Calculate

- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.
- KU 5 Pg.
- KU 6 Pg.
- KU 7 Pg.
- KU 8 Pg.
- KU 9 Pg.
- KU 10 Pg.

Reason About Number Patterns

- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.
- KU 5 Pg.
- KU 6 Pg.

Year 5	Year 6	Year 7
<p>NUMBER AND PLACE VALUE</p> <p>Identify and describe factors and multiples of whole numbers and use them to solve problems [ACMNA098]</p> <p>Use estimation and rounding to check the reasonableness of answers to calculations [ACMNA099]</p> <p>Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies [ACMNA100]</p> <p>Solve problems involving division by a one digit number, including those that result in a remainder [ACMNA101]</p> <p>Use efficient mental and written strategies and apply appropriate digital technologies to solve problems [ACMNA291]</p>	<p>NUMBER AND PLACE VALUE</p> <p>Identify and describe properties of prime, composite, square and triangular numbers [ACMNA122]</p> <p>Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers [ACMNA123]</p> <p>Investigate everyday situations that use positive and negative whole numbers and zero. Locate and represent these numbers on a number line [ACMNA124]</p>	<p>NUMBER AND PLACE VALUE</p> <p>Investigate index notation and represent whole numbers as products of powers of prime numbers [ACMNA149]</p> <p>Investigate and use square roots of perfect square numbers [ACMNA150]</p> <p>Apply the associative, commutative and distributive laws to aid mental and written computation [ACMNA151]</p> <p>Compare, order, add and subtract integers [ACMNA280]</p> <p>REAL NUMBERS</p> <p>Compare fractions using equivalence. Locate and represent fractions and mixed numerals on a number line [ACMNA152]</p> <p>Solve problems involving addition and subtraction of fractions, including those with unrelated denominators [ACMNA153]</p> <p>Multiply and divide fractions and decimals using efficient written strategies and digital technologies [ACMNA154]</p> <p>Express one quantity as a fraction of another, with and without the use of digital technologies [ACMNA155]</p> <p>Round decimals to a specified number of decimal places [ACMNA156]</p> <p>Connect fractions, decimals and percentages and carry out simple conversions [ACMNA157]</p> <p>Find percentages of quantities and express one quantity as a percentage of another, with and without digital technologies. [ACMNA158]</p> <p>Find percentages of quantities and express one quantity as a percentage of another, with and without digital technologies. [ACMNA173]</p>
<p>FRACTIONS AND DECIMALS</p> <p>Compare and order common unit fractions and locate and represent them on a number line Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator [ACMNA103]</p> <p>Recognise that the number system can be extended beyond hundredths [ACMNA104]</p> <p>Compare, order and represent decimals [ACMNA105]</p>	<p>FRACTIONS AND DECIMALS</p> <p>Compare fractions with related denominators and locate and represent them on a number line [ACMNA125]</p> <p>Solve problems involving addition and subtraction of fractions with the same or related denominators [ACMNA126]</p> <p>Find a simple fraction of a quantity where the result is a whole number, with and without digital technologies [ACMNA127]</p> <p>Add and subtract decimals, with and without digital technologies, and use estimation and rounding to check the reasonableness of answers [ACMNA128]</p> <p>Multiply decimals by whole numbers and perform divisions that result in terminating decimals, with and without digital technologies [ACMNA129]</p> <p>Multiply and divide decimals by powers of 10 [ACMNA130]</p> <p>Make connections between equivalent fractions, decimals and percentages [ACMNA131]</p>	<p>MONEY AND FINANCIAL MATHEMATICS</p> <p>Investigate and calculate 'best buys', with and without digital technologies [ACMNA174]</p> <p>LINEAR AND NON LINEAR RELATIONSHIPS</p> <p>Given coordinates, plot points on the Cartesian plane, and find coordinates for a given point [ACMNA178]</p> <p>Solve simple linear equations [ACMNA179]</p> <p>Investigate, interpret and analyse graphs from authentic data [ACMNA180]</p>
<p>MONEY AND FINANCIAL MATHEMATICS</p> <p>Create simple financial plans [ACMNA106]</p>	<p>MONEY AND FINANCIAL MATHEMATICS</p> <p>Investigate and calculate percentage discounts of 10%, 25% and 50% on sale items, with and without digital technologies [ACMNA132]</p>	
<p>PATTERNS AND ALGEBRA</p> <p>Describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition and subtraction [ACMNA107]</p> <p>Use equivalent number sentences involving multiplication and division to find unknown quantities [ACMNA121]</p>	<p>PATTERNS AND ALGEBRA</p> <p>Continue and create sequences involving whole numbers, fractions and decimals. Describe the rule used to create the sequence. [ACMNA133]</p> <p>Explore the use of brackets and order of operations to write number sentences [ACMNA134]</p>	<p>PATTERNS AND ALGEBRA</p> <p>Introduce the concept of variables as a way of representing numbers using letters [ACMNA175]</p> <p>Create algebraic expressions and evaluate them by substituting a given value for each variable [ACMNA176]</p> <p>Extend and apply the laws and properties of arithmetic to algebraic terms and expressions [ACMNA177]</p>

Year 7 Achievement Target

By the end of Year 7, students solve problems involving the comparison, addition and subtraction of integers. They make the connections between whole numbers and index notation and the relationship between perfect squares and square roots. They solve problems involving percentages and all four operations with fractions and decimals. They compare the cost of items to make financial decisions. Students represent numbers using variables. They connect the laws and properties for numbers to algebra. They interpret simple linear representations and model authentic information. Students describe different views of three-dimensional objects. They represent transformations in the Cartesian plane. They solve simple numerical problems involving angles formed by a transversal crossing two parallel lines. Students identify issues involving the collection of continuous data. They describe the relationship between the median and mean in data displays.

Students use fractions, decimals and percentages, and their equivalences. They express one quantity as a fraction or percentage of another. Students solve simple linear equations and evaluate algebraic expressions after numerical substitution. They assign ordered pairs to given points on the Cartesian plane. Students use formulas for the area and perimeter of rectangles and calculate volumes of rectangular prisms. Students classify triangles and quadrilaterals. They name the types of angles formed by a transversal crossing parallel line. Students determine the sample space for simple experiments with equally likely outcomes and assign probabilities to those outcomes. They calculate mean, mode, median and range for data sets. They construct stem-and-leaf plots and dot-plots.

ACTIVITIES

Resources Being Used

PROFICIENCY STRANDS	
<p>Understanding</p> <p>Students build a robust knowledge of adaptable and transferable mathematical concepts. They make connections between related concepts and progressively apply the familiar to develop new ideas. They develop an understanding of the relationship between the 'why' and the 'how' of mathematics. Students build understanding when they connect related ideas, when they represent concepts in different ways, when they identify commonalities and differences between aspects of content, when they describe their thinking mathematically and when they interpret mathematical information.</p>	<p>Problem Solving</p> <p>Students develop the ability to make choices, interpret, formulate, model and investigate problem situations, and communicate solutions effectively. Students formulate and solve problems when they use mathematics to represent unfamiliar or meaningful situations, when they design investigations and plan their approaches, when they apply their existing strategies to seek solutions, and when they verify that their answers are reasonable.</p>
<p>Fluency</p> <p>Students develop skills in choosing appropriate procedures, carrying out procedures flexibly, accurately, efficiently and appropriately, and recalling factual knowledge and concepts readily. Students are fluent when they calculate answers efficiently, when they recognise robust ways of answering questions, when they choose appropriate methods and approximations, when they recall definitions and regularly use facts, and when they can manipulate expressions and equations to find solutions.</p>	<p>Reasoning</p> <p>Students develop an increasingly sophisticated capacity for logical thought and actions, such as analysing, proving, evaluating, explaining, inferring, justifying and generalising. Students are reasoning mathematically when they explain their thinking, when they deduce and justify strategies used and conclusions reached, when they adapt the known to the unknown, when they transfer learning from one context to another, when they prove that something is true or false and when they compare and contrast related ideas and explain their choices.</p>